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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/838,866
Filing Date: April 20, 2001
Appellant(s): WEAVER, SAMUEL C.

Frederick L. Tolhurst
For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/19/04 and the reply briefs filed 11/12/04 & 6/6/05, which are noted and entered. In addition, corrections have been made accordingly as required by the Board remand filed 6/16/06.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 15 & 16 have been withdrawn from consideration because Appellant has requested to withdrawn these claims in the Appeal Brief filed 7/19/04. Although the reply briefs on 11/12/04 & 6/6/05 stated that claims 15 & 16 are being considered, the Examiner believes that this is merely an inadvertent error of Appellant to include these two claims for consideration because these two claims contain similar subject matter as that of claims 1-14.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The rejection of claims 1-14 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5344608	EOM ET AL.	9-1994
5573607	WEAVER	11-1996

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-14 are rejected under 35 U.S.C. 103(a). This rejection is set forth in a prior Office Action, mailed on 11/21/03. Regarding the Board's remand based on a possible new ground of rejection, the Examiner does not believe that there is a new ground of rejection as stated by Appellant in the reply brief on 11/21/04. Appellant appears to believe that the Examiner was trying to replace the metal material of Eom with the metal material of Weaver completely but this is not the case. Hence, that is the reason why the Examiner states that the Examiner is not trying to replace the metal of Eom with the metal composite as taught by Weaver as alleged by Appellant. The

Examiner was merely trying to explain to Appellant in the final rejection on 11/21/03 that Weaver was relied upon for a teaching of silicon boride composition to make a metal material stronger; therefore, it would have been obvious to combine Eom with Weaver for a teaching of silicon boride composition to make the metal material stronger in the horseshoe of Eom. Perhaps in explaining, the Examiner confused the Appellant, thus, the argument has been reworded as below. There is no new ground of rejection.

(11) Response to Argument

Appellant argued that the Examiner fails to recognize the differences between metal alloys and metal matrix composites. There is nothing in Eom that describes a metal matrix composite, instead, Eom teaches a metal alloy, which is not the same as a metal matrix composite.

The Examiner used these two terms interchangeably because, based on the specification and the claims of Appellant, it doesn't appeared that they are different. For example, throughout Appellant's specification, Appellant used the term metal matrix composite; however, upon further examination of the disclosure, the metal matrix composite is defined as molten metal selected from the group consisting of aluminum, magnesium, titanium and mixtures thereof (see claim 1 and specification pages 2 & 3). Thus, as defined by Appellant, the Examiner believes the metal matrix composite is defined as a material being formed by molten metal selected from of aluminum, magnesium, titanium and mixtures thereof. Eom teaches the same ingredients except that Eom calls his alloyed metal for horseshoe. If a word is used and it is unclear as to the meaning, in this case, the metal matrix composite, the Examiner relies on the

specification to find further meaning of the word, and in this case, the Examiner finds that the definition of a metal matrix composite is simply a material that is formed by a molten metal selected from aluminum, magnesium, titanium and mixtures thereof. Eom teaches a molten metal selected from aluminum, magnesium, titanium and mixtures thereof (col. 1, lines 58-61, cols. 2-4, all lines) to make a horseshoe. Perhaps in the metal industry that metal alloy and metal matrix composites are two different processes of turning metal into a desire form; however, Appellant has not defined the differences based on Appellant's disclosure and the claims. As mentioned in the rejection, Weaver was relied upon for a teaching of silicon boride composition to make a metal material stronger; therefore, it would have been obvious to combine Eom with Weaver for a teaching of silicon boride composition to make the metal material stronger in the horseshoe of Eom.

Appellant argued that the high vibration damping property of the metal matrix composite in the horseshoe of the present invention is unknown and unexpected.

While the references do not show a specific recognition of that result, its discovery by Appellants is tantamount only to finding a property in the old composition." 363 F.2d at 934, 150 USPQ at 628. Eom clearly states in col. 1, lines 8-11, that his horseshoe displays abrasion resistance, shock absorption, and ductility, which shock absorption is equivalent to high vibration damping property (especially when Appellant has not defined what is considered "high"). Again, Weaver607 was employed because of silicon boride composition to make a metal material stronger; therefore, including

silicon boride composition as taught by Weaver607 in the alloyed metal of Eom to make the metal stronger would have been obvious to one of ordinary skill in the art. Appellant has not discovered a new property in the metal composition of Eom as modified by Weaver607, even if Eom as modified by Weaver607 does not specifically state, which it does, that the horseshoe has high vibration damping property.

Appellant argued that the Examiner has hindsighted with Appellant's own teachings.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Appellant argued that Weaver607 does not teach that a metal matrix composite having silicon boride will demonstrate properties of both stiffness and cushioning due to high vibration damping.

While the references do not show a specific recognition of that result, its discovery by Appellants is tantamount only to finding a property in the old composition." 363 F.2d at 934, 150 USPQ at 628. Although Weaver607 does not specifically stiffness and high vibration damping, it does not mean that the property is not in the

metal matrix composite. The metal matrix composite of 607 is the same one used in the present invention; therefore, the metal matrix composite of 607 inherently have these properties.

Appellant argued regarding a long-felt need/need for improved horseshoe, metal matrix composites are not metal alloys, Eom in view of Weaver, and the declaration of Samuel C. Weaver.

In order to address a long-felt need, appellant must state that the claimed subject matter solved a problem that was long standing in the art. However, appellant has not proven so because there is no show that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references, they would still be unable to solve the problem. See MPEP § 716.04.

The examiner is merely relying on Weaver's teaching of silicon boride composition to make a metal material stronger; therefore, since Eom et al. teach a metal material to be used in horseshoe, the metal material of Eom include the group consisting of Al, Si, Fe, Cu, Mn, Mg, Cr, Zn, etc., but the metal material does not include silicon boride composition to make it stronger, which Weaver teaches in a metal matrix composites for use in a variety of industries relating to usage of metal, it would have been obvious to one of ordinary skill in the art studying these two references would add the silicon boride teaching of Weaver in the metal material of Eom et al. in order to obtain a stronger horseshoe. Eom et al. teach a horseshoe that has stiffness and

vibration damping (see col. 1, lines 7-10, 64-68 and col. 2, lines 1-6, "abrasion resistance" would be for stiffness because if not stiff, abrasion would occur; "shock absorption" is same as vibration damping). The combination of Eom and Weaver teach a metal matrix composite horseshoe since appellant claimed such metal matrix composite horseshoe being comprised of molten metal from aluminum, magnesium, etc., which Eom et al. teach, and silicon boride composition, which Weaver teaches.

The declaration of Samuel C. Weaver has been acknowledged and entered by the examiner. However, the declaration is not found persuasive. While the references do not show a specific recognition of that result, its discovery by Appellants is tantamount only to finding a property in the old composition." 363 F.2d at 934, 150 USPQ at 628. Although Weaver607 does not show a specific recognition of the same result as Appellant, the property is in the composition. In addition, it should be noted that it is the combination of Eom as modified by Weaver607 that the Examiner is relying on and not just Weaver607, which is the sole concentration of argument in the Declaration.

It is greatly appreciated that Mr. Weaver explained the metal properties and differences between each types; however, as mentioned in the above, it is the silicon boride composition that the examiner is relying on from Weaver to make a metal material stronger such as the metal material used in the horseshoe of Eom et al. In addition, Eom et al. stress an interest in abrasion resistance and shock absorption, which are basically the same as vibration damping and stiffness because if the horseshoe is not stiff, then it will abrade easily. Furthermore, nothing in the declaration

provides evidence that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references, they would still be unable to solve the problem. The declaration appears to be addressing the same point(s) as that provided by appellant's representative and not really discuss the problem long standing in the art. By stating that the references are old does not constitute long standing in the art because contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Son T. Nguyen
Primary Examiner
Art Unit 3643

stn
August 6, 2006

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